

PROOF

CORRESPONDENCE

CONCERNING A

PETITION PRESENTED TO THE
HONOURABLE THE HOUSE OF COMMONS

BY SIR RONALD ROSS, K.C.B., F.R.C.S., F.R.S.,

ON

NOVEMBER 8, 1913

[*I. Covering Letter from Sir Ronald Ross to the Chancellor
of the Exchequer.*]

TO THE RIGHT HONOURABLE
THE CHANCELLOR OF THE EXCHEQUER.

SIR,

I have the honour to request permission to submit for your consideration the enclosed petition to the House of Commons, in the hope that it may receive your recommendation on behalf of the Crown, as I am informed is necessary before it can be received by the House (S.O. 66).

The grounds upon which I venture to submit the petition are set forth in the body thereof; and as precedent for this course which I have adopted I may perhaps be allowed to state that a similar petition by Edward Jenner was considered by the House of Commons in the Session of 1802, and again from the same petitioner in 1807. Another similar petition from George William Manby was considered in 1823. In these instances the prayers of the Petitioners were met and pecuniary remuneration accorded to them by the House of Commons.

In submitting the petition, I may perhaps venture to urge that men of science have primary duties to fulfil to their families as well as to the world, and that researches on the mode of spread, and the methods of prevention of diseases do not bring with them such remuneration as is obtained by successful clinical practitioners; which fact, it must be admitted, tends to retard the progress of these important branches of medical science.

I therefore pray that you, Sir, by your recommendation on behalf of the Crown and by reference to a Committee, which Your Petitioner believes is the usual course, or otherwise, will afford my petition an opportunity of being considered in the House of Commons.

I am,

Sir,

Your most obedient humble servant.

(Signed) RONALD ROSS.

*Knight Commander of the Bath,
Fellow of the Royal Society,
Fellow of the Royal College of Surgeons.*

November 8, 1913.
18, CAVENDISH SQUARE,
LONDON, W.



[*II. Petition of Sir Ronald Ross to the House of Commons.*]

TO THE HONOURABLE THE COMMONS OF THE UNITED KINGDOM
OF GREAT BRITAIN AND IRELAND IN PARLIAMENT ASSEMBLED.

The Humble Petition of Ronald Ross, Knight Commander of the Bath, Major of the Indian Medical Service (retired), Fellow of the Royal College of Surgeons of England, sheweth as follows :

Your Petitioner submits that his researches in the subjects of his medical profession and work arising therefrom have been of the greatest sanitary and economical advantage to many of the Governments and peoples of His Majesty's dominions, but have occasioned loss to your Petitioner by preventing him from following his profession of surgeon.

Your Petitioner was qualified to practise surgery in 1880, and next year entered His Majesty's Indian Medical Service. In the year 1889, being then employed upon active military service in Burma, he became convinced that the current theories regarding the method of propagation of malarial fever were ill-founded and determined thereupon to investigate that subject, and commenced his investigation shortly afterwards in India. As a first result of his studies he received the Parkes' Memorial prize given at the Royal Military Hospital at Netley, and then became acquainted through Dr. Laveran, the discoverer of the parasite of malaria, and Dr. Manson, with the old hypothesis that the said parasite may be carried in some manner by the insects called Culicidæ, commonly known as mosquitoes or gnats, though this hypothesis had never yet received any proof. Early in 1895 your Petitioner endeavoured to find experimental evidence in favour of the hypothesis, but for more than two years continued the researches fruitlessly, because he was working with the wrong species of mosquitoes. These researches were done entirely during his own leisure and at his own expense, and in 1897 he refused a Civil Surgeoncy at Akola in order to remain free to continue the investigations, and was himself taken ill with malarial fever while he was studying it near Ootacamund. While there, however, he found another species of mosquitoes, and when working with this species in Secunderabad, observed on the 20th August, 1897, the first development of the parasite of human malaria in the insect, and this discovery, though further researches upon it were still required, disclosed both the form and the position of the parasites in the insects, and also indicated the species of insect which are concerned in the conveyance of malarial fever from man to man.

After an interruption of five months by other duties, he was temporarily placed by the Government of India on special duty to continue his investigations of malaria ; and in 1898 was able to determine, by minute and exhaustive investigations, the whole life-cycle of the closely allied malarial parasite of birds in another species of mosquito, and also to ascertain the fact that the infection is conveyed directly into healthy birds by the bites of infected insects. The general laws which he had thus ascertained were now seen to apply also to the human parasites, thus determining the method of infection in a disease which causes a much greater amount of sickness than any other tropical malady, and which does so, not only in India, but throughout his Majesty's tropical dominions, and in the tropical parts of America, and in Spain, Italy, Greece, and other countries.

At the end of 1898 his previous researches were fully verified by Geheimrath Professor Doctor Robert Koch in Germany, and by several Italian workers. Early in 1899, finding that the expense of his investigations, including the cost caused by the necessity of frequently moving his family from place to place, which expenses, being only partly defrayed by his salary from Government, were more than he could bear, and failing to obtain from the Director-General of the Indian Medical Service a definite assurance that he would be continued in the work, and being convinced that his researches were of such world-wide value that they would be better continued from Britain as a centre, he thereupon resigned his commission in the Indian Medical Service, and was appointed to the Liverpool School of Tropical Medicine, which was then just created. Immediately afterwards he continued his researches by going to Sierra Leone, where he further verified his previous researches, and ascertained definitely the two species of mosquitoes which are the most important carriers of malaria in Africa. Further, upon the basis of these investigations, he was able to elaborate and particularise the methods for preventing malarial fever and other mosquito-borne diseases, and communicated these methods to the Colonial Office and to the Government of Sierra Leone. Since then he has never ceased to advocate these methods. In 1901, finding that they were not even yet being extensively used, he undertook an actual demonstration of them in Sierra Leone, with funds for the work offered by private persons. In 1902 he went to Ismailia to advise the Suez Canal Company regarding the riddance of malaria from that town, which, as the result of his advice, has ever since remained free from the disease. At the same time, largely as the result of his researches and advice, the Americans were able to reduce malaria and yellow fever in the city of Havanna, in Cuba. In 1904 your Petitioner proceeded, on the invitation of the American Government, to Panama, to witness the similar measures being commenced for

the same purpose in the Panama Canal Zone. In 1906 he proceeded to Greece for a similar purpose; and in 1907 he visited Mauritius by the request of the Government and the British Colonial Office, with excellent results, including the entire riddance of malaria from the neighbourhood of the barracks of the European soldiers in Mauritius. In 1909 he attended the first great Indian Medical Congress at Bombay for the purpose of urging more general anti-malaria measures throughout India; and in 1913 he went to Cyprus to advise the Government upon the prevention of malaria there also, and his report on the subject is now before the Government.

In addition to these works, similar preventive measures have been adopted in Klang, Port Swettenham, Egypt, Natal, Crete, Greece, Italy, many parts of the United States, and in many of His Majesty's dominions in Africa and in India. In addition to these active campaigns, the general health of Europeans in warm countries has been greatly improved by the mere knowledge of the fact that mosquitoes communicate malaria, and by the use of the preventive measures which have been frequently and carefully advocated by your Petitioner in many books; and since then he has been constantly engaged in teaching these subjects to a large number of qualified medical men, including many officers of the Indian and African Medical Services, and has also delivered many lectures on the subject in Britain and abroad, and has conducted a very large correspondence with those who have sought his advice, and has been made a member of many Government Committees. For his researches and work arising therefrom your Petitioner has been elected Fellow and Royal Medallist of the Royal Society of London, and has received the Nobel Prize, and degrees and honours from many foreign universities and learned societies.

Your Petitioner further submits that much good effect has been produced, and will continue to be produced by these means, upon the health of the populations of most warm countries, and that this improvement of public health has not only benefited the people in such countries and in Britain, but has tended to cheapen the cost of commerce and to save much of the cost of invaliding, sickness, and death to their Governments, including the Governments of His Majesty's dominions, and will continue to do so. These things have been fully set forth in many reports to Government, as for example those on the statistics of officials in West Africa and of His Majesty's troops in India, as can be proved on reference to the said reports; and on June 27, 1912, the Right Honourable the Secretary of State for the Colonies stated before your Honourable House that the "discovery of the mosquito as the carrier of malaria, the study of its life-history, and the methods of its destruction, have put a new engine of hygienic progress in the

hands of our medical staff." Your Petitioner further begs to submit that these results have followed entirely from his discovery in 1897, without which it is very doubtful whether we should even yet have possessed any exact knowledge upon the means of propagation of malaria, and of several other important maladies; and that they have also followed largely from his subsequent researches and other labours in the subject, with the help given by many medical men and officials in the countries referred to.

On the other hand your Petitioner submits that the series of experiments and labours by which this discovery was developed, completed, and rendered practically useful have not only occupied a considerable portion of your Petitioner's life, and have not merely been the cause of great expense and anxiety to him, but have so interrupted him in the ordinary exercise of his profession of surgeon as materially to abridge its pecuniary advantages, without their being counterbalanced to him in any pecuniary form by those derived from the adoption of the new practice; that his private funds expended by him in India in connection with his researches before 1899 have not been refunded to him; and that the total profits and emoluments arising to him in such salaries, pension, fees, and rewards as he has received have altogether amounted to less than any ordinary surgeon of his age might expect to have obtained during a life's work, and to much less than is very frequently obtained by successful surgeons in the ordinary practice of their profession; and he would respectfully submit that he and those professional men whose efforts are directed to the general service of humanity and of the empire, by the discovery of the laws concerned in the propagation of the most important diseases, and of the best methods of prevention, are justified in expecting commensurate payment for such labours, no less than the physician and surgeon are justified in expecting such payment for attendance on individual sick persons.

Your Petitioner, therefore, with the full persuasion that he shall meet with that attention and indulgence of which this Honourable House may deem him worthy, humbly prays this Honourable House to take the premises into consideration, and to grant him such remuneration and relief as to their wisdom shall seem meet.

[IV. *Letter from Sir Ronald Ross to the Private Secretary to the
Chancellor of the Exchequer.*]

From SIR RONALD ROSS, K.C.B., F.R.S., F.R.C.S.,
18, CAVENDISH SQUARE,
LONDON, W.

December 24, 1913.

TO THE PRIVATE SECRETARY,
TO THE RIGHT HONOURABLE,
THE CHANCELLOR OF THE EXCHEQUER,
TREASURY CHAMBERS,
WHITEHALL, S.W.

SIR,

I beg to acknowledge with thanks the receipt of your letter of December 15 concerning a petition to the House of Commons forwarded by me to the Right Honourable the Chancellor of the Exchequer under my letter of November 8 last, with the request that he would see fit to recommend the petition on behalf of the Crown as required by Standing

Order No. 66; and I hope that I may be now permitted to give a more detailed explanation of my reasons for submitting the petition referred to.

I am informed by Messrs. Sherwood & Co., who assisted me in drawing up my petition, that there is nothing in the proceedings of Parliament, since the petitions of Edward Jenner and of George William Manby were favourably received by the House, to annul the usage then successfully adopted by those petitioners; and that the procedure which I have employed regarding my petition is the only one which will enable me to obtain the relief asked for.

If, as it appears, no similar petitions have been presented to the House since these just mentioned, the fact may be fully explained by the circumstance that it is doubtful whether other work which would maintain such a petition has been done since then in this country. In order to make this clear I should explain that a large number of scientific discoveries in the domains of physics and chemistry are not of direct economical benefit to the State, or, if so, are capable of leading to patents which repay the discoverers for their work. In the domain of medicine, though many investigations as to the symptoms and the treatments of diseases have been made since that time, these are also of a nature which have seldom given direct economical benefit to the State; but nevertheless, although no patents can be obtained directly for medical scientific discoveries, such investigations often repay the discoverers by increased medical or surgical practice. Another class of medical discoveries is concerned with physiology and deals with a study of the general laws of the body, and also does not yield direct economical benefit to the State. In addition to such discoveries, however, there is a third class, which does not deal with the symptoms or the treatment of diseases, or the physiology of the body, but which elucidates the general nature of diseases or the mode in which they are communicated from man to man. This last class of discovery is, it will be admitted, of much more direct importance to the State than the former classes of clinical and physiological discoveries, because it leads to the general prevention of diseases by public and private means. Of this last class (which also seldom brings profit to the discoverer), few have been originally made by British workers since the time of Jenner, and the originators of such as have been made by British workers were probably not aware of the procedure adopted by Edward Jenner to obtain payment for his work, or, as in a certain distinguished case, were recouped by increased practice, or were already wealthy. I beg therefore to plead that the absence of similar petitions subsequent to the time of Jenner is no proof that such petitions are no longer necessary, or that they will not be necessary in the future.

The reason why I now feel justified in petitioning the House of Commons in a manner similar to that adopted by Edward Jenner is that my discovery of the mode of propagation of malaria and my subsequent work on the best methods of prevention belong exactly to the same class as his work, namely, to the third class described above. My work, as set forth in the body of my petition, has led directly to considerable economical as well as humanitarian advantages to the British Empire. It has saved the governments of all malarious colonies large sums of money which were formerly lost in consequence of the death, sickness, and invaliding of many officials and soldiers. It has enhanced the prosperity of such countries by tending to increase the population, the commerce, and therefore the revenue of many localities. In proof of this I am able to furnish much evidence; as for instance the improvement of health in West Africa, and the great fall in the sickness and invaliding for malaria among British troops in India, namely from the figure of 42 per cent. in the year of my discovery (1897) to that of only 9 per cent. in 1911, out of a total average strength of over sixty thousand men. As another example, I may state that in the year 1902 I went to Ismailia on the Suez Canal in the company of Sir William MacGregor, then Governor of Lagos, on the invitation of the Suez Canal Company, to advise regarding the reduction of malaria in that town, as to which the Company had hitherto failed. The result of my advice was that the disease has ever since been banished from Ismailia; and this has saved the Company much money and has doubtless increased the dividends of its shares, of which the British exchequer directly receives over £1,000,000 a year. Yet I went to Ismailia without any fee and merely for the payment of my expenses (because I feared to put a check upon this new kind of work), and the Suez Canal Company has since then never offered me any payment whatsoever for the advantage which it has received from my advice, nor has the Government of Great Britain done so, in spite of the fact that it is the principal shareholder and that I am a British subject. All such improvements, in these and in other places, have been the means of saving a large expenditure to the Governments concerned; but at the same time my work has been by its very nature of no profit to myself, but rather of loss, because it has resulted in the expenditure of all my time and efforts, which might have been used more profitably for my family and myself in the prosecution of my proper professional work as a surgeon; and indeed it has resulted in an actual loss to me in consequence of the frequent expenditure of my private funds for such work, and even because the increased public health due to my researches actually tends to diminish my own medical practice and that of other medical

men engaged upon the treatment of tropical diseases. Thus, I beg to maintain, and think I can reasonably do so, that the gain derived by the State from the work referred to has been obtained largely at my own personal expense; and therefore hope that I am fully justified in begging Parliament for some relief on the ground that such a thing is not fair to a private professional man like myself. And I venture to submit that the precedent of Edward Jenner proves that the House of Commons has actually, definitely, and for ever, accepted the general principle for which I contend, namely that scientific and professional men who have conferred scientific and professional benefits upon the State have a right to claim pecuniary payment in return; for it seems only reasonable to suppose that such services deserve payment when performed for the State as well as when performed for individuals. And I also venture to submit that the case of Jenner, for which he received payment, was exactly comparable to my own case, for which I now petition for relief; and that nothing has happened since the time of Jenner to annul the ruling then adopted by the House of Commons; and that Standing Order 66 has never been repealed, and still remains of full force and effect, and inferentially indicates that the proper course for me to pursue was the one which I have adopted in addressing the Right Honourable the Chancellor of the Exchequer as to petitioning the House of Commons.

But I beg to state that my appeal is made less on personal grounds than for the whole cause of science in Britain, and especially of the highest class of medical science. At present there is absolutely no method except the one which I am now adopting by which any high scientific work that cannot be patented will be remunerated, even though it proves to be of direct economical importance to the State. The result is that very little of such work is being done or even attempted in this country. It is true that there is much investigation, done chiefly by young men; but this is very seldom of the long-continued, arduous, and determined character which alone gives success as regards the more difficult problems of science, and especially of medical science. In the latter, young medical men soon perceive that scientific investigation leads at best to very small professorial salaries, and that, except in petty clinical lines, it does not lead to professional practice. At an early age, and often just when they are becoming sufficiently trained for great work, they are forced to leave science and to fall back upon their profession. Of this I can speak with definite certainty, as I have been in charge of considerable departments engaged upon the study of tropical medicine; and may remark that the case of those who have worked upon this subject during the last fourteen years is a specially hard one. Their efforts

have caused a great amelioration of the public health in the tropics; have educated large numbers of medical men serving in the tropics, including Government medical officers; have resulted in the formation of schools of tropical medicine, with museums, teachers, and scientific publications; and have encouraged private donations to the cause amounting to about £300,000 (of which only about one-tenth has been given by British Governments). Yet the workers themselves, though they have consented in their enthusiasm for science to accept very small salaries for their work, have received no adequate remuneration for it, while no attempt has yet been made even to lay down pensions for them in the case of sickness or old age (with the exception of two very small pensions for professorships). I submit that this is a mere exploitation of men who have done so much for the State, and I see clear evidence already that the work done is rapidly diminishing both in quantity and in quality. Returning to the general subject, I may remark that almost all great medical discoveries have been made by private individuals who have laboured extremely at the subject; but when the medical profession understand, as it is now understanding by experience, that such work leads to no professional payment, however successful it may be, the members of that profession will and do certainly hesitate before attempting such work, and the researches actually done will be of the minor variety which I have described above. However much medical men may desire to further the knowledge of disease, they are still always held in chains of necessity; they generally have families to support, and they cannot afford to embark upon such difficult work as will exclusively demand all their time and energies. I make no apology for laying this fact before the Chancellor of the Exchequer, who has himself assisted science so much by founding the great Insurance Fund for medical researches, now being employed upon the study of tuberculosis. When the Departmental Committee for considering the management of this fund was formed, I gave evidence before it (Cd. 6654, p. 158), and strongly emphasised the necessity of offering payment for important work done in connection with medical research; and I am sure that if this course is not followed the work done is not likely to be of the high order referred to above, for the plain reason that it will pay no one to do it. On the other hand, the method of petition used by Edward Jenner is precisely the one which is likely to give the best results to the State, because it implies payment, not for small work to be done, but for great work already accomplished. If medical and other scientific men understand that this course is open to them they will engage upon the more difficult investigations with all the greater ardour, and the just payment made by the State will therefore redound to its own profit. In the case of Jenner

Parliament undoubtedly met his petition favourably partly for this very reason, and if other petitions are also allowed to go before the House the fact will certainly have the same effect. Even if the British Government does not consider it a point of honour to remunerate professional men for professional services rendered to the State, still, if it refuses to entertain petitions for such remuneration, it will injure, not only those who have conferred such benefits upon the State, but also its own people; for the result can only be that difficult investigations on matters of life and death to millions will largely remain unattempted by those best qualified to undertake them.

In your letter of December 15, you were good enough to inform me that the Chancellor of the Exchequer has no funds at his disposal for grants in respect to eminent scientific services. But I have presented my petition precisely in the hope that it may lead to the formation by the House of Commons of some such fund to encourage, not only medical work, but scientific work in general, and indeed great work in other lines, such as the higher arts, useful but unpatentable inventions, exploration, and other labours which enhance the honour or prosperity of the State but receive no reward; and a very small annuity scheme would suffice for this large purpose.

I therefore beg that the Right Honourable the Chancellor of the Exchequer will see fit to give my petition an opportunity of being heard by the House of Commons. Relying upon the justice of the case and upon his wisdom, I have not attempted to obtain any support of my petition from outside, although I am confident that such support would be easily forthcoming from many men of science, and persons who are connected with our tropical possessions. But, if he thinks it necessary, I could easily set about obtaining such support; and I am also always desirous of laying before him, or before any person whom he may appoint for the purpose, all such further facts and considerations as will go to prove the validity of my plea.

I have the honour to be,

Sir,

Your obedient servant,

(Signed) RONALD ROSS.

APPENDIX

(Copy of the petition of Dr. Edward Jenner, obtained from the records by Messrs. Sherwood & Co. The petition was presented to Parliament during the Session of 1802, and Parliament granted the petitioner the sum of £10,000. Dr. Edward Jenner presented another petition in 1807, and received a further grant of £20,000. The full details will be found in the "Life of Edward Jenner, M.D.," by John Baron, M.D., F.R.S. London: Henry Colburn, Publisher, 1838).

TO THE HONOURABLE THE COMMONS OF THE UNITED KINGDOM OF
GREAT BRITAIN AND IRELAND IN PARLIAMENT ASSEMBLED.

*The humble Petition of Edward Jenner,
Doctor of Physic.*

SHEWETH as follows,—

That the Petitioner having discovered that a disease which occasionally exists in a particular form among cattle known by the name of the Cow Pox admits of being inoculated on the human frame with the most perfect ease and safety and although its symptoms are so mild as scarcely ever to prove even a temporary impediment to the ordinary course of health yet it is attended with the singularly beneficial effect of rendering through life the person so inoculated secure from the infection of the Small Pox; and that the Petitioner after a most attentive and laborious investigation of the subject setting aside considerations of private and personal advantage and anxious to promote the safety and welfare of his countrymen and of mankind in general did not wish to conceal the discovery he so made, or the mode of conducting this new species of inoculation, but immediately disclosed the whole to the public and by communication with medical men in all parts of this kingdom and in foreign countries sedulously endeavoured to spread the knowledge of his discovery and the benefit of his labours as widely as possible and that in this latter respect the views and wishes of the Petitioner have been completely fulfilled for to his high gratification he has to say, that this inoculation is in practice throughout a great proportion of the civilised world and has in particular been productive of great advantage to this kingdom in consequence of its being introduced under authority in the army and navy; and that the said inoculation hath already checked the progress of the small pox and from its

nature must finally annihilate that dreadful disorder; and that the series of experiments by which this discovery was developed and completed have not only occupied a considerable portion of the Petitioner's life and have not merely been a cause of great experience and anxiety to him but so interrupted him in the ordinary exercise of his profession as materially to abridge its pecuniary advantages without their being counter-balanced by those derived from the new practice, and that the Petitioner with a view to obviate doubts which of late were falsely represented to have arisen in a foreign country respecting the efficacy and certainty of the Vaccine Inoculation and thereby to enable himself with better confidence to solicit the favourable attention of the House was induced to delay his application till after the time limited by the House for receiving petitions of a private nature was elapsed:

And therefore praying that leave may be given to exhibit a Petition that the House will be pleased to take the premises into consideration and grant him such remuneration as to them shall seem meet.

And your Petitioner in duty bound will ever pray, &c.

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